DEDICATION

Kennecott shows off new smelter, refinery

Copper giant paid a pretty penny to modernize and clean up operations.

By Max B. Knudson
Deseret News business editor

Kennecott Corp. threw a party Thursday, and some 300 invited guests, including Gov. Mike Leavitt and Robert Wilson, chief executive officer of Kennecott's parent company, RTZ Corp., got a look at what $880 million will buy.

That was the price tag for the copper giant's new smelter and refinery in the foothills of the Oquirrh mountains west of Magna — a complex that Robert R. Dimock, president of Kennecott Utah Copper, termed "the most modern and environmentally efficient copper producer in the mining industry."

Thursday's festivities began with a breakfast and briefing at Little America, followed by a bus ride for guests to tour the new facilities and then a lunch buffet back at the hotel.

Reporters got a sneak preview of the new plant on Wednesday, and it's safe to say most came away impressed that converting huge quantities of dirt into 3-foot squares of pure copper can be done with less mess than most of us make fixing dinner.

That's the idea, of course. At the "new" Kennecott, cleanliness really is next to godliness. The new smelter is designed to capture 99.9 percent of the sulfur generated in the smelting process, and early tests indicate that target is being met, officials said.

It also captures waste heat as steam to co-generate some 85 percent of its electrical power.

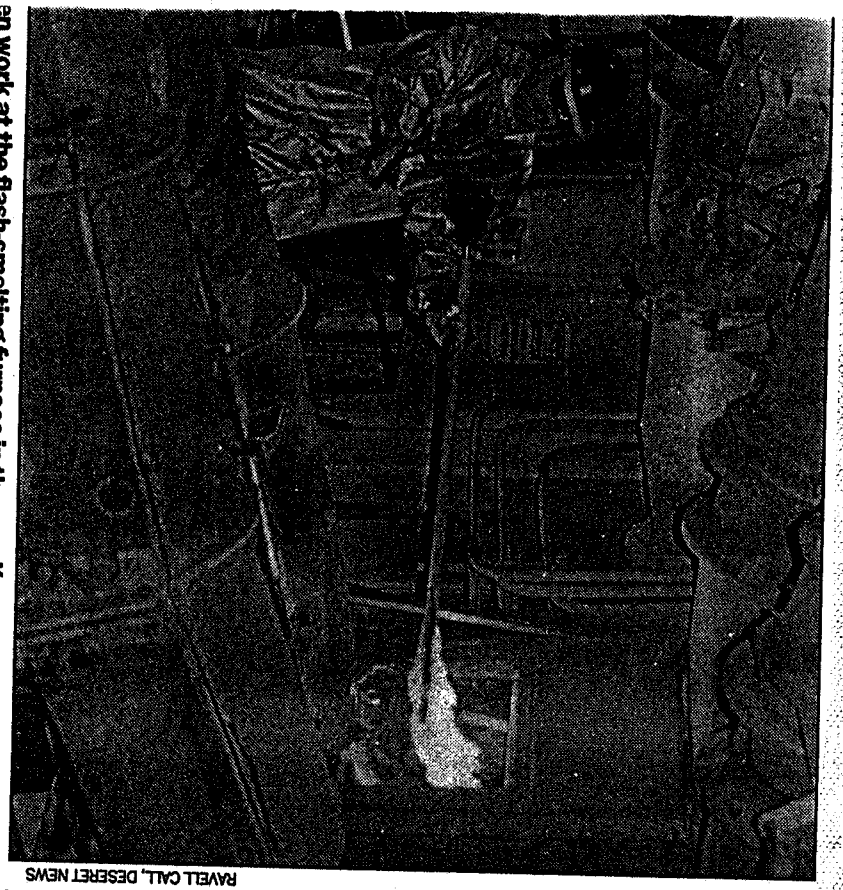
Thursday's dedication ceremony was the culmination of a massive modernization project announced in 1992 that included upgrading and expanding the refinery, which is now highly automated with robotic systems moving throughout the plant with only their computer brains to tell them what to do.

Formerly, the smelter/refinery had to export 40 percent of its copper concentrate, said David George, director of smelting technology. But once the new facility is at full capacity, it will be able to process all of its concentrate at the complex.

Although the operative figure for the smelter/refinery upgrade is $880 million, that outlay is only part of the story. Since 1985, Kennecott has invested more than $1.5 billion to upgrade its Utah operations, including expansion of the tailings area. By the turn of the century, the company will have spent $2 billion in modernizing the entire process.

Dimock says it is money well spent.

Please see **KENNECOTT** *on A2*



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en work at the flash-smelting furnace in the new Kennecott refinery.

KENNECOTT

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"When the new smelter is at full capacity in the first quarter of 1996, we will be one of the lowest cost major copper producers in the world," he said. "Not only have we set a new standard for the copper industry, we have ensured the economic viability of Kennecott."

Officials said the new smelter uses a process called "flash smelting" in which the molten copper metal from the flash-smelting furnace is quenched in water and granulated instead of transferred by ladle and overhead crane. This allows the furnaces to operate at peak efficiency and eliminates the transfer of molten metal — a major source of emissions in the old smelter.

The second step in the process uses technology called "flash converting," which allows the smelter's primary pollution control device — the acid plant — to operate more efficiently and with lower emissions.

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The Salt Lake Tribune **BUSINESS** Friday, September 22, 1995

Explosion Can't Keep Kennecott From Dedicating New Smelter

By John Keahey
THE SALT LAKE TRIBUNE

Kennecott's new $880 million smelter-refinery had its glitches during three months of test runs, but the dedication of the crown jewel in the Utah copper giant's modernization program went without a hitch Thursday.

Just last Saturday, an explosion in one of two smelting-refining furnaces forced the company to produce only high-grade, 70% pure granulated copper matte.

The damaged unit is expected to be out of commission six to eight weeks, according to Smelter Technology Director David George. Both furnaces are needed to produce 98% pure anode copper.

The mishap was blamed on a faulty cooling element that leaked water onto molten copper in the furnace, causing a steam explosion that slightly injured one person.

"It was a fairly serious incident," George acknowledges, "but it gives us a chance to inspect the furnace after a few months of operation."

Kennecott London-based parent RTZ Corp. has not released its estimated production losses, but analysts said last Saturday's explosion may result in lost production of about 5,000 tons of copper per month.

George disagrees.

He points out overall copper production from Kennecott will not be reduced. The same volume of granulated copper matte will come out of the remaining furnace, but the company will incur additional expense by sending that matte elsewhere for processing.

Despite the problems, officials say they still expect the smelter-refinery to be at full capacity by their original target date: the first quarter of 1996.

If it is, the new facility is designed to produce 310,000 tons of refined copper annually — double the capacity of the previous operation.

The furnaces represent state-of-the-art technology that makes Kennecott "the most modern and environmentally efficient copper producer" in the world, according to a company statement issued Thursday.

The dedication marked the end of a major modernization of all Kennecott operations, from the open-pit copper mine on the east slope of the Oquirrh Mountains 23 miles southwest of Salt Lake City to the northern tip of the range.

The company has spent $1.5 billion on mine and concentrator improvements, along with the smelter-refinery plant. Still remaining is a $500 million expansion of the area where the company dumps tailings left over from the concentrator process.

After three months of operation, George is "extremely pleased" with the low level of sulfur dioxide emissions from the plant, which he says is well below state and federal limits.